



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,889	11/06/2001	Hajime Tabata	0505-0913P	4547

2292 7590 10/24/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

PHAM, TUAN

ART UNIT PAPER NUMBER

2643

DATE MAILED: 10/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/985,889	Applicant(s) TABATA ET AL.	
	Examiner TUAN A. PHAM	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-8, 10, 12-15 and 20 is/are rejected.
- 7) ☒ Claim(s) 4, 9 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-2, 4-10, and 12-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-2, and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stafford et al. (U.S. Patent No.: 5,243,659, hereinafter,**

“Stafford”) in view of Thompson (US Patent No.: 4,178,548) and further in view of Tsutsui (U.S. Patent No.: 6,030,229).

Regarding claim 1, Stafford teaches a communication system for individuals comprising (see figure 1):

a plurality of helmets each helmet being provided with a speaker and a microphone (see figure 3, speaker 115, microphone 127, 129, col.13, ln.38-62),
a communication unit (see figure 3, VOX intercom 88, col.13, ln.38-62), and
a cable for connecting the communication unit and each of said helmets for enabling communication between individuals wearing each helmet (see figure 3, cable 87, 89, VOX intercom 88, col.13, ln.38-62).

It should be noticed that Stafford fails to teach a connector for connecting the communication unit and the cable. However, Thompson teaches such features (see figure 2, transceiver 10, connector 35, cable 34, col.3, ln.7-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Thompson into view of Stafford in order to connect the earphone with transceiver.

Stafford and Thompson, in combination, fails to teach the connector being a magnetic connector and including plural electrodes. However, Tsutsui teach such feature (see figures 12A-12D, col.2, ln.1-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsutsui into view of Stafford

and Thompson in order to provide the connecting with the strong magnet, but easy disconnected.

Regarding claim 2, Stafford further teaches the helmets and the cable are connected together (see figure 3, it is obvious that the cable and the helmets are connected by a connector), and Tsutsui further teaches the magnetic connector (see figures 12A-12D, col.2, ln.1-29).

Regarding claim 5, Thompson further teaches the communication system for individuals, wherein the connection between the communication unit and the cable may be disconnected by applying a force in any direction (see figure 2, transceiver 10, connectors 33, 35, cable 34, it is obvious that the user can disconnected the cable at any time in any direction).

Regarding claim 6, Stafford further teaches the communication system for individuals wherein the connector are secured to each of said helmets and said cables (see figure 3, cables 87, 89 are connected with the helmet by a connector), and Tsutsui further teaches the magnetic attractive connector (see figures 12A-12D, col.2, ln.1-29).

Regarding claim 7, Thompson further teaches the communication system for individuals wherein the connector are secured to said communication unit and said cables (see figure 2, transceiver 10, connector 35, cable 34, col.3, ln.7-10), and Tsutsui further teaches the magnetic attractive connector (see figures 12A-12D, col.2, ln.1-29).

Regarding claim 8, Stafford further teaches the communication system for individuals further including a detecting circuit for detecting loud noises and for

suppressing said loud noises so that individuals using the communication system do not experience unpleasant sounds (see figure 1, col.2, ln.59-68, col.3, ln.1-19).

4. Claims 10, 12-15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stafford et al. (U.S. Patent No.: 5,243,659, hereinafter, "Stafford") in view of Doss, Jr. et al. (U.S. Patent No.: 6,075,857, hereinafter, "Doss") and further in view of Tsutsui (U.S. Patent No.: 6,030,229).

Regarding claim 10, Stafford teaches a communication system for individuals comprising (see figure 1):

a plurality of helmets each helmet being provided with a speaker and a microphone (see figure 3, speaker 115, microphone 127, 129, col.13, ln.38-62),
a communication unit (see figure 3, VOX intercom 88, col.13, ln.38-62), and
a cable for connecting the communication unit and each of said helmets for enabling communication between individuals wearing each helmet (see figure 3, cable 87, 89, VOX intercom 88, col.13, ln.38-62).

It should be noticed that Stafford fails to teach a connector for connecting of the helmets and the cable. However, Doss teaches such features (see figure 1, connectors 50, 52, electrical cord, col.3, ln.44-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Doss into view of Stafford in order to connect the helmet with the cable.

Stafford and Doss, in combination, fails to teach the connector being a magnetic connector and including plural electrodes. However, Tsutsui teach such feature (see figures 12A-12D, col.2, ln.1-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsutsui into view of Stafford and Doss in order to provide the connecting with the strong magnet, but easy disconnected.

Regarding claim 12, Doss further teaches the communication system for individuals, wherein the connection between the helmet and the cable can be disconnected by applying a force in any direction (see figure 1, connectors 50, 52, electrical cord, it is obvious that the user can disconnected the cable at any time in any direction).

Regarding claim 13, Doss further teaches the communication system for individuals wherein the connector are secured to each of said helmets and said cables (see figure 1, connectors 50, 52, electrical cord), and Tsutsui further teaches the magnetic attractive connector (see figures 12A-12D, col.2, ln.1-29).

Regarding claim 14, Doss further teaches the communication system for individuals wherein the connector are secured to each of said communication unit and said cables (see figure 1, connector 60, electrical cord, col.4, ln.6-12), and Tsutsui further teaches the magnetic attractive connector (see figures 12A-12D, col.2, ln.1-29).

Regarding claim 15, Stafford further teaches the communication system for individuals further including a detecting circuit for detecting loud noises and for

suppressing said loud noises so that individuals using the communication system do not experience unpleasant sounds (see figure 1, col.2, ln.59-68, col.3, ln.1-19).

Regarding claim 20, Doss further teaches the connector includes a first socket mounted on each of the helmets and a second socket mounted on a first end of the cable, said cable including a plug mounted on a second end of the cable for connecting to the communication unit (see figure 1, connector 50, 52, 60, col.3, ln.44-67, col.4, ln.1-12), and and Tsutsui further teaches the magnetic attractive connector (see figures 12A-12D, col.2, ln.1-29).

Allowable Subject Matter

5. Claim 3 is allowed.

6. Claims 4, 9, and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-8097 and

IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (571) 272-2600 FOR THE SUBSTITUTIONS OR COPIES.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2643

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
October 17, 2005
Examiner

Tuan Pham


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600